



KEEPING COMMON SPECIES COMMON

By Sandra Hagen



Above: John Leonhart, with the University of North Dakota, weighs a small mammal captured in southwestern North Dakota.

Right: Scientists are eager to learn what's important for survival for the short-horned lizard and other nongame species.

White-tailed deer, ring-necked pheasants, mallards and walleye. Most North Dakotans, both young and old, can identify these common game animals. When asked, they'll also have a fair understanding of the kinds of habitat these animals occupy.

But let's try some tougher ones: plains spadefoot, hispid pocket mouse and pink heelsplitter. Don't feel bad, some wildlife biologists would have a tough time identifying these animals, let alone telling you where they live.

The plains spadefoot is a toad found in grasslands nearly statewide. It burrows into sandy or loose soil using a black, leathery-like "spade" on the bottoms of its hind feet, patiently waiting to emerge at night to breed in ponds made by heavy summer rains.

From nose to tip of the tail, the hispid pocket mouse is more than 7-inches long and inhabits southwestern North Dakota's grasslands, hayfields or cropland. This mouse does not hibernate in winter, but stays busy eating a stash of cactus, sage, sunflower and bluestem seeds collected during summer.

The pink heelsplitter is a mussel or clam found in the Red and Sheyenne rivers. It spends a decade or more nestled in stream-bottom mud. Water is pumped constantly through its body to filter meals of plankton and detritus. Unlike the pocket mouse, the heelsplitter takes a break during winter, triggering a black growth ring on its shell, which can be counted for aging like tree rings.

It's hard to blame anyone – from biologist to pedestrian – for not knowing much about our nongame animals. The North Dakota Game and Fish Department is funded nearly entirely by hunter and angler license fees, therefore much of its efforts are focused on learning about and managing white-tailed deer, pheasants, mallards, walleye and other game species.

Nongame species have benefited from on-the-ground conservation efforts funded by hunter, angler and trapper dollars and other programs directed at game species conservation. Spadefoot toads live in grasslands where mallards nest, and walleye swim over pink heelsplitters. Yet the decline of many fish and wildlife species continues. The federal endangered species list now features more than 1,000 animals, the majority of which are nongame species that have somehow slipped through cracks of prior conservation efforts, leading to costly recovery efforts.

In 2001, a program for state wildlife agencies to consider all fish and wildlife in



planning and management was initiated at the national level. The State Wildlife Grants program is the nation's core program for preventing wildlife from becoming endangered, keeping common species common, and saving taxpayer dollars through proactive response to species declines and federal listings.

In just six years, the State Wildlife Grants program has provided more than \$3.5 million to the Game and Fish Department. This program is a matching grants effort, meaning every 75 cents from SWG must be matched with 25 cents from a nonfederal source. For Department-funded projects, much of the matching money has come from outside sources such as universities, Ducks Unlimited, The Nature Conservancy and others.

To accept these funds, the Game and Fish Department was required to develop a Wildlife Action Plan – a plan of attack to keep animals from joining the ranks of endangered species. The plan, a habitat-based approach to conservation, will serve as a guide to on-the-ground conservation actions using State Wildlife Grants funding.

Little research has been conducted on nongame species in North Dakota, but that's changing. What's vital to safeguarding these species is learning what they need to survive. What follows highlights completed or ongoing projects the Department has funded with State Wildlife Grants.

Landscape Approach to Grassland Bird Conservation

Project: Degradation and loss of native prairie has led to widespread declines in grassland birds. The project, a multi-state effort to conserve grassland birds in the Prairie Pothole Region, is designed to develop breeding bird models/maps to link bird population densities to habitats. The maps/models will guide management by predicting the landscape's ability to attract grassland birds, determine treatments to meet habitat requirements, and predict improvements in bird populations.

Timeline: 2002-07

Survey of Golden Eagles

Project: How many golden eagles nest in the Little Missouri National Grassland in southwestern North Dakota? Are these large raptors producing enough chicks to keep the population stable? Are the chicks surviving? And are golden eagles that nest in North Dakota staying in the state during winter?

The answers to these and other questions

will help determine population trends and aid efforts to manage golden eagles and other raptors in southwestern North Dakota.

Timeline: 2003-06



CRAIG BIRHLE

This willet, and other nongame bird and animal species, will benefit from the State Wildlife Grants program. In just six years, the SWG program has provided more than \$3.5 million to the Game and Fish Department.

Distribution and Abundance of Swainson's and Ferruginous Hawks

Project: Swainson's and ferruginous hawks are species of concern in North Dakota, but their current range and abundance, among other things, are poorly understood. The development of habitat use models, however, will enable wildlife managers to identify habitat and land use features that affect hawk distribution, and assist in conservation planning.

Preliminary results indicate that large amounts of grassland, and a good supply of ground squirrels and prairie dogs – their favorite food – are important to these prairie hawks.

Timeline: 2003-06

Marsh Bird Distribution

Project: This study will evaluate the types of habitat or landscape, including Conservation Reserve Program grasslands, that attract a variety of 16 nongame marsh-breeding birds, such as grebes, rails and bitterns. Typically seen loafing or feeding in wetlands, the landscape surrounding the wetland, such as the amount of grass, trees and cropland, can determine if the species decides to nest in that wetland or adjacent uplands.

Findings from the research will help predict wetland occupancy by the target species based on habitat surrounding each wetland.

This project has a unique twist to it because of support from private industry. In 2005, Alliance Pipeline Company contributed \$10,000 to the project.

Timeline: 2004-06

Performance of Shorebirds and Raptors

Project: Several prairie-breeding shorebirds and raptors are species of concern, but little information is available beyond the types of habitats these birds prefer. For example, while shorebird species need wetlands for foraging and grasslands for nesting, reproductive success is likely influenced by habitat factors that are not currently known.

This project will identify areas important for sustaining populations of shorebirds and raptors across North Dakota's Missouri Coteau.

Timeline: 2003-06

Distribution of Long-billed Curlews

Project: The long-billed curlew has become quite rare in North Dakota and little information is available concerning its abundance and distribution. To better understand the bird's status and future needs, researchers will attempt to obtain a population size estimate of breeding curlews in southwestern North Dakota. They will also investigate

curlew habitat use during their stay in the state, and develop protocol for monitoring birds in following years.

Timeline: 2005-07

Below, left: Scott Stephens, with Ducks Unlimited, checks on a nest during field work for his study on prairie-nesting shorebirds and raptors.

Below, right: The State Wildlife Grants program is the nation's core program for keeping common species, like this black tern, common.

Colony Abandonment of American White Pelicans

Project: This project is a monitoring effort to help identify factors that may lead to colony abandonment or reduced productivity of the largest nesting colony of white pelicans in North America. Chase Lake National Wildlife Refuge's pelicans will also be monitored for estimated distances traveled to foraging sites; determine locations and characteristics of foraging sites; and document sources of disturbance at nesting sites.

Timeline: 2005-07

Northern Great Plains Joint Venture

Project: This project matches funding with The Nature Conservancy to integrate research on birds in southwestern North Dakota. This integration will help provide guidance to wildlife biologists for developing programs for some species. Maps and models will be developed. These are the keys to identifying sensitive habitats for certain species. Identifying these habitats allows biologists to focus efforts specific to the needs of sensitive species.

Timeline: 2005-06

Natural Heritage Program Database

Project: Key to conserving species in North Dakota is to compile the best available information. Safeguarding rare or declining species is impossible without reliable distribution data. Currently, the Game and Fish Department maintains some nongame species records and North Dakota Parks and Recreation Department's Natural Heritage Program has maintained a rare animal and plant and natural community database for more than 20 years. This project will upgrade the information to a Geographic Information System for improved data sharing and management capabilities.

Timeline: 2004-06

Richardson's Ground Squirrel Colonies in North Dakota

Project: The Richardson's ground squirrel, more commonly known as flickertail, was once widespread east of the Missouri River. Evidence suggests the number of ground squirrel colonies have declined in some areas of the state. Knowledge of the species' distributional changes is needed to manage the ground squirrel and associated vertebrate species, such as burrowing owls and ferruginous hawks, which closely associate with the colonies for shelter and food.

Timeline: 2005



SANDRA HAGEN

CRAIG BIHRLE

Mammal Literature Review

Project: This project combines information about mammals of North Dakota into a single resource. Wildlife managers need thorough knowledge and understanding of the species within a community to better manage the entire ecosystem. This compilation, which includes valuable information on the biology and management of all 84 mammalian species in North Dakota, will be available to the public.

Timeline: 2005

Mapping Black-tailed Prairie Dogs

Project: The North Dakota Game and Fish Department has committed to mapping black-tailed prairie dog colonies in the state every three to five years. The last mapping was 2001-02. This survey will, among other things, compare the number of prairie dog colonies over time; help agency biologists make management decisions for prairie dogs in North Dakota; and provide biological information needed if the prairie dog is again petitioned for listing as an endangered species.

Timeline: 2005-06



Sagebrush lizard

Department Supports Restoration of SWG Funding

Funding for projects designed to help North Dakota's struggling wildlife species would likely be reduced by more than \$160,000 next year if cuts made by the U.S. House of Representatives Interior Appropriations Committee are not restored before the 2007 federal budget is finalized.

However, as of mid-May, a bipartisan group of 170 representatives and 56 senators have signed a letter to the chairmen of the House and Senate interior appropriation subcommittees calling for \$85 million in State Wildlife Grants funding, rather than the \$50 million approved by the House subcommittee. In fiscal year 2006, states received \$68.5 million in SWG funding.

North Dakota's allocation for 2006 is \$604,000. This funding is helping with research, monitoring, and habitat enhancement for many species that live in or migrate through the state, whose populations are in decline or of special concern. Many of these projects are described in the preceeding pages.

Throughout the country, SWG funding supports all species in some form, but is used primarily to help wildlife that is not hunted, fished or trapped, and is designed to keep species from becoming threatened or endangered.

"Losing this funding would be a blow for our State Wildlife Grants program," said Terry Steinwand, Department director. "We have a number of important projects underway that we may not be able to complete if efforts to recover the funding are not successful."



The North Dakota Game and Fish Department's prairie dog management plans calls for a survey of prairie dog colonies every three to five years.

Small Mammal, Reptile and Amphibian Communities

Project: This project will reassess the distribution and diversity of small mammals, reptiles and amphibians in southwestern North Dakota; determine habitats and plant types important to small mammals, reptiles and amphibians; identify species lost or reduced in abundance over time; and develop protocol for sampling these animals in other regions of North Dakota.

Timeline: 2005-07

River Otter Abundance

Project: The thinking is that river otters are re-colonizing North Dakota, but no formal research has been conducted to evaluate the status or distribution of this animal. This project will map the whereabouts of otters, determine food habits, while keeping an eye trained for other animals like fishers and spotted skunks. What scientists learn will be used to educate the public about river otters and other aquatic conservation issues of concern.

Timeline: 2005-08

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